Listing and Amendment of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) An appliance for reading from and/or writing to optical recording media, ~~wherein signals which are required for carrying out differential focusing methods also are used for generation of a land groove detection signal~~ said appliance comprising:

means for deriving a first error signal only from signals of photodetector segments associated with a main beam;

means for deriving a second error signal different from the first error signal only from signals of photodetector segments associated with a secondary beam;

means for deriving a differential focus error signal from the first error signal and the second error signal; and

means for forming a land groove detection signal by combining the first error signal multiplied by a first branch weight with the second error signal multiplied by a second branch weight.

2. (currently amended) A method for generating a track type signal ~~in~~ using a scanning unit for an optical recording ~~media~~ medium having data stored in tracks, ~~with~~ wherein the scanning unit ~~having~~ includes an objective lens and a focus control loop, ~~producing an optical~~ and is operative to produce a main beam and at least one secondary beam~~, evaluating~~ and to evaluate light reflected from the optical recording medium with a plurality of photodetector segments ~~which are~~ associated with the ~~beams~~ main beam and the at least one secondary beam, the method comprising steps of:

deriving a first error signal only from ~~the~~ signals of the photodetector segments associated with the main beam ~~and~~ ;

deriving a second error signal different from the first error signal only from ~~the~~ signals of the photodetector segments associated with the at least one secondary ~~beams, comprising:~~ beam;

[[-]] scanning ~~of~~ the optical recording medium with a scanning beam;

~~deflection of~~ deflecting the objective lens in a focus direction;

~~measurement of two~~ measuring first and second measurement signals which ~~are formed differently and contain details about the~~ contain, in different proportion, a first component that depends on a distance of the objective lens relative to the optical recording medium and ~~about the~~ a second component that depends on a position of the scanning beam relative to the tracks on the optical recording medium;

~~evaluation of~~ deriving an evaluation signal from the first and second measurement signals;

~~setting of branch weights controlled by the result of the evaluation;~~

deriving first and second branch weights from the evaluation signal; and

~~formation of~~ forming the track type signal by ~~combination of~~ combining the first error signal multiplied by ~~a first of~~ the first branch ~~weights and of~~ weight with the second error signal multiplied by [[a]] the second ~~of the~~ branch ~~weights~~ weight.

3. (currently amended) The method as claimed in claim 2, ~~which is used with~~ wherein:

the focus control loop is switched on;

~~, with the objective lens being deflected by~~ the deflecting step comprises feeding a disturbance signal into the focus control loop[[,]] ;

the measuring step comprises extracting a track error component contained in the first and second error signals and caused by the disturbance signal ~~being extracted, and the correct setting of the branch weights being determined~~ ; and

the step of deriving the first and second branch weights comprises determining the first and second branch weights from ~~the~~ a phase angle and ~~the~~ an amplitude of the track error component.

4. (currently amended) The method as claimed in claim 3, ~~with the first measurement signal being formed~~ wherein:

the measuring step comprises forming the first measurement signal from the disturbance signal and forming the second measurement signal ~~being formed~~ from ~~the~~ a difference between the first error signal and the second error signal ~~in order to extract the track error component,~~ ; and

the evaluation signal represents a product of the first and second measurement signals ~~being evaluated as the evaluation signal~~ .

5. (currently amended) The method as claimed in claim 4, ~~with the evaluation signal being evaluated by averaging or integration~~ wherein the step of deriving the first and second branch weights comprises one of averaging and integrating the evaluation signal.

6. (currently amended) The method as claimed in claim 2, ~~in which the objective lens is deflected by~~ wherein the deflecting step comprises moving ~~it~~ the objective lens towards the optical recording medium with the focus control loop open.

7. (currently amended) The method as claimed in claim 6, ~~in which~~ wherein:

the first measurement signal is formed from the first error signal[[,]] and the second measurement signal is formed from the second error signal[[,]] ;

~~the~~ amplitudes of the first and second measurement signals are ~~evaluated,~~ used to derive the evaluation signal; and

the first and second branch weights are calculated from the ~~measured~~ amplitudes of the first and second measurement signals such that ~~the~~ a difference between the first and second error signals multiplied by the first and second branch weights disappears.

8. (currently amended) The method as claimed in claim 6, ~~in which~~ wherein:

the first measurement signal is formed from the first error signal multiplied by the first branch weight[[,]] ;

the second measurement signal is formed from the second error signal multiplied by the second branch weight;

~~the~~ amplitudes of the first and second measurement signals are ~~evaluated and,~~ used to derive the evaluation signal; and

~~if there are any differences between the amplitudes, the branch weights are changed~~ the step of deriving the first and second branch weights comprises changing the first and second branch weights in at least one adjustment step if there is any

difference between the amplitudes of the first and second measurement signals such that the difference between the amplitudes is reduced.

9. (currently amended) The method as claimed in claim [[3]] 8, ~~with the~~ wherein a magnitude of the change to the first and second branch weights in an adjustment step ~~being~~ is determined as a function of ~~the~~ a value of the evaluation signal in a previous adjustment step.

10. (currently amended) The method as claimed in claim 2, ~~with~~ wherein those signals ~~which are~~ involved ~~being~~ in the method that are based on a plurality of individual signals are normalized ~~with respect to the~~ relative to a sum of the individual signals ~~on which they are each based~~.

11. (currently amended) An apparatus ~~for carrying out one of the methods as claimed in claim 2~~ , comprising:

a scanning unit for an optical recording medium having data stored in tracks, the scanning unit being operative to produce a main beam and at least one secondary beam;

a plurality of photodetector elements operative to evaluate light reflected from the optical recording medium; and wherein:

a first error signal is derived only from signals of the photodetector elements associated with the main beam;

a second error signal different from the first error signal is derived only from signals of the photodetector elements associated with the at least one secondary beam;

a differential focus error signal is derived from the first error signal and the second error signal; and

a land groove detection signal is derived by combining the first error signal multiplied by a first branch weight with the second error signal multiplied by a second branch weight.